BY ORDER OF THE COMMANDER
419TH FIGHTER WING

419th FIGHTER WING INSTRUCTION 21-114

11 September 1999

Maintenance

ACCEPTANCE INSPECTION

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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OPR: 419 LG/LGQ
(MSgt Randall Chamberlain)

Certified by: 419 LG/CC (Lt Col David L. Avner)

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This instruction assigns responsibilities and establishes procedures for F-16 acceptance inspections. It implements AFPD 21-1, *Managing Aerospace Equipment Maintenance*. References AFI 21-103, *Equipment Inventory Status and Utilization Report*; T.O. 00-20-1, *Preventative Maintenance Program General Policy Requirements and Procedures*; T.O. 00-35D-54, *USAF Material Deficiency Reporting and Investigating System*; T.O. 1-1B-40, *Weight and Balance Data*; T.O. 1F-16C-6WC-2-11, *Preflight, End-of-Runway, Thruflight, Launch and Recovery, Quick Turnaround, and Basic Postflight Inspection Workcards*; T.O. 1F-16C-10JG-00-11, *Aircraft Safety*; T.O. 1F-16C-2-70FI-00-11, *Fault Isolation Power Plant*; T.O. 1F-16C-2-80FI-00-1, *Engine Starting and Accessory Drive Gearbox Systems*; AFRCI 21-101, *Aircraft Maintenance Guidance and Procedures*; AFCSM 21-556, *Air Force Computer System Manual* (Formerly AFM 66-279 Vol 1), T.O. 1F-16C-6-11, *Scheduled Inspection and Maintenance Requirements*. This applies to all aircraft maintenance personnel assigned to 419th Logistics Group (LG) and 419th Operation Group (OG).

SUMMARY OF REVISIONS

This revision adds more responsibilities to plans, scheduling and documentation section (paragraph 2.2.1.); clarifies engine inspections (paragraph 2.4.4.), changes responsibilities for quality assurance (paragraph 2.5.1.). A (|) indicates revisions from the previous edition.

1. Procedures. An acceptance inspection is accomplished on F-16 aircraft immediately after delivery.

2. Responsibilities:

2.1. All personnel involved with acceptance inspections will document any missing, misconfigured, or damaged equipment end items on the AFTO Forms 781A, Maintenance Discrepancy and Work Document and in Core Automated Maintenance System (CAMS).

2.2. Plans, Scheduling and Documentation (PS&D) Section:

2.2.1. Loads applicable acceptance inspection job standard (JST) into CAMS.

2.2.2. Inspects the entire aircraft records jacket and document file for accuracy, corrects time compliance technical order (TCTO) status and time change requirements immediately upon aircraft arrival.

2.2.3. Notifies quality assurance (LGQ) of any noted discrepancies upon completion of this inspection.

2.2.4. Monitors the dash 21 equipment transfers as prescribed by AFI 21-103, Chapter 9. Coordinates with weapons and munitions flight. Notifies LGQ of shortages.

2.3. Fighter Squadron Maintenance (FSM) Aircraft Flight:

2.3.1. Closes out incoming AF Forms 781 and transcribes all open incoming discrepancies into CAMS and 419 FW aircraft 781 binder.

2.3.2. Depanels the aircraft for acceptance inspection as prescribed by Attachment 1.

2.3.3. Accomplishes inspection requirements of T.O. 00-20-1, T.O. 1F-16C-6WC-2-11, and Attachment 2 of this instruction.

2.3.4. Performs visual inspection of jet fuel starter (JFS) area as prescribed by T.O. 1F-16C-70FI-00-11 and 1F-16C-2-80FI-00-1.

2.3.5. Notifies LGQ of any noted discrepancies upon completion of inspection.

2.4. Propulsion Flight:

2.4.1. Accomplishes borescope inspection of engine as prescribed by T.O. 1F-16C-2-70FI-00-11.

2.4.2. Visually inspects inlet first stage fan blades, internal and external components of turbine exhaust area, and all exposed areas of the external engine.

2.4.3. Visually inspects fuel and oil filter bypass indicators and T2.5 sensor indicator for proper indication.

2.4.4. Verifies hourly engine inspections are within T.O. 1F-16C-6-11 time criteria.

2.4.5. Notifies LGQ of any noted discrepancies upon completion of inspections.

2.5. Quality Assurance (LGQ):

2.5.1. Ensures acceptance inspection JST has been loaded into CAMS. If CAMS is down or not available, places acceptance inspection 781A preprints into aircraft 781 binder.

2.5.2. Complies with the Chart "A" equipment inventory using airplane general (APG) and specialist personnel of the respective systems. T.O. 1F-16C-6WC-2-11, Attachment 2, and the DD Form 365-1, Chart A-Basic Weight and Balance Record, will be utilized as a guide to comply with this inventory/inspection requirement. A red dash entry will be entered in the aircraft AFTO Form 781A to reflect aircraft DD Form 365-1, Chart A is accomplished.

2.5.3. Reviews aircraft 781 binder for discrepancies found during the acceptance inspection and prepares a report as prescribed by T.O. 00-35D-54.

F.C. WILLIAMS, Colonel, USAFR
Commander

Attachment 1

F-16 ACCEPTANCE INSPECTION PREPARATION INSTRUCTIONS

A1.1. Ensure aircraft is safe for maintenance as prescribed by T.O. 1F-16C-2-10JG-00-1.

A1.2. Ensure aircraft is fully serviced with internal fuel.

A1.3. Ensure aircraft is in hangar (inspection can be performed outside, weather permitting).

A1.4. Ensure that sufficient support equipment is available to accomplish the inspection, i.e., electrical power, air conditioner, hydraulic test stand, aircraft entrance ladder, and maintenance stands as required.

A1.5. In addition to the basic post flight panels, the following access covers/doors removed/ opened when a full acceptance inspection is required.

A1.6. Doors and covers marked with an asterisk are removed or opened for DD Form 365-1 Chart "A" inventory.

F-16 C & D

*1100 Radome Assy, Nose
*1101 Door, Fwd Equip Bay, L/H
*1103 Door, Fwd Equip Bay, L/H
*1202 Door, Fwd Equip Bay, R/H
*1204 Door, Fwd Equip Bay, R/H
*1305 Cover, AC Power Panel
*2101 Door, Lower Strake, L/H
*2105 Door, ECS Ground Service
*2202 Door, DC Power Panel
*2204 Door, DC Power Panel
*2206 Door, AC Power Panel
*2303 Cover Avionics Bay L/H
*2304 Cover Avionics Bay R/H
*2404 Cover, Avionics Comp R/H
*2408 Cover, H70 Fuel Tank
*3119 Duct, Inlet, Eng Comp Vent L/H
*3224 Cover, side Panel, ECS Acc
*3206 Door, Ammo Loading
*3301 Door, ECS Compt L/H
3304 Door, Eng Access R/H
*3308 Door, Lox Conv Access, R/H
*3312 Cover, Elect Equip, R/H
*3313 Cover, ECS Compt, L/H
*3401 Cover, Ammo Drum
*3402 Cover, LE Flap Drive
*3408 Cover, H70 Fuel Tank
*3409 Cover Gun Breech
*3412 Cover, EPU Compartment
*3415 Cover Sys B Comp, LH/FS
*3416 Cover Sys A Comp, RH/FS
4101 Door 5th Stage Bleed
4103 Door 9th Stage Bleed L/H
4115 Cover Horiz Tail Act
4216 Cover Horiz Tail Act
4305 Cover Aft Engine
4401 Cover, Flaperon Act L/H
4402 Cover, Flaperon Act R/H
*4427 Cover Rudder Act Fwd L/H

*3302 Door, IFF Access R/H
3303 Door, Eng Access L/H
*4429 Cover Rudder Act L/H
4301 L/H Ventral

F-16D PANELS ONLY:

*2107 Door, ECS Ground Service
*2418 Cover, Avionics Compt. R/H
*3432 Cover, Ammo Drum
*3434 Fairing Fixed Canopy
*3435 Fairing Fixed Canopy
*3436 Fairing, Aft Canopy Expansion Joint

Attachment 2

F-16 WIRING/HARNESS INSTALLATION GUIDE

Selected Inspection Characteristics Form MIL-W-5088E and the Air Vehicle Specifications (16PS002 and 16PS006)

A2.1. Anti Chafing Provisions. Verify harnesses are routed to maintain required physical separation from equipment and structure. Closer than 3/8 inch at edges requires protection (non-pressure contact with a smooth nonabrasive surface is not considered chafing). Harness must be secured to prevent contact with edges of equipment and structure.

A2.2. Slack Wire and Cables. Verify that wires and cables do not have excessive slack. Ensure that sufficient slack is available to provide the following:

A2.2.1. One service replacement for connectors.

A2.2.2. Two service replacements for terminals.

A2.2.3. Room to disconnect harness connections when removing equipment and panels during routine maintenance without removal of other equipment and panels.

A2.2.4. To prevent mechanical strain on wires, junctions and supports.

A2.3. Flight Control Harness. Verify that redundant branches are routed in separate clamps; where practical, a minimum of one inch shall be maintained between branches.

A2.4. Primary Support. Verify that only cushion clamps are used, distance between clamps does not exceed 24 inches, harnesses are not supported by other harnesses, and there is distinct physical separation from all fluid and gas carrying lines and tubes.

A2.5. Support at Connectors. Verify that termination at connectors are supported to dress wires in direction of wires.

A2.6. Clamp Size. Verify proper clamps are used to secure harness without crushing or deforming insulation of wires.

A2.7. Radius of Bend. Ensure minimum radius of bend is maintained:

A2.7.1. Unsupported wire or cable - 10 times diameter of wires or cable.

A2.7.2. At terminal strips - 3 times diameter wire.

A2.7.3. High density harness - 6 times diameter of harness.

A2.8. Multiple Grounds/Terminal. Verify that no more than four wires/terminals are connected by any one stud.

A2.9. Adjacent Connector. Verify that improper connection cannot be made when identical connectors are used in adjacent locations.

A2.10. Safety Wiring. Verify 1/2" red dot has been placed on structure adjacent to connectors requiring safety wire and connectors are correctly wired.

A2.11. Protective Covers. Verify that unmated connectors are properly capped with vapor tight protection covers. Use either a captive cover or a dummy receptacle.

A2.12. Provision Plugs. Verify that aircraft connector plug provided for future equipment or test purposes are secured by clamps or dummy receptacles.